HEMATITE FUEL FABRICATION FACILITY, PELLET DRYING
(Building No. 256-1)
3300 State Road P
Festus
Jefferson County
Missouri

HAER MO-113-M
*MO-113-M*

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

**HISTORIC AMERICAN ENGINEERING RECORD**

# HEMATITE FUEL FABRICATION FACILITY
# BUILDING 256-1
# (Pellet Drying)

**HAER No. MO-113-M**

**Location:** 3300 State Road P
Festus, Jefferson County, Missouri

**Present Owner:** Westinghouse Electric Company Limited Liability Corporation (LLC)

**Present Use:** Building 256-1 is currently being used to support waste processing operations.

**Significance:** The Hematite Fuel Fabrication Facility, also known as Hematite Former Fuel Cycle Facility and the Westinghouse Electric Company Hematite Facility, was constructed over a period of thirty-one years. The Facility was the first privately owned and operated uranium fuel production plant in the United States. The plant produced nuclear fuel for military as well as peacetime purposes throughout the "Cold War" era.

The Hematite Fuel Fabrication Facility produced high-enriched nuclear fuel for the U.S. Navy nuclear submarine program and other reactor programs during the "Cold War" years of 1956 to 1974. After 1974 the Facility produce only commercial grade low enriched uranium for commercial nuclear power facilities

## PART I. HISTORICAL INFORMATION

### A. Physical History

1. **Date of Construction:** Circa 1970s

2. **Architect:** The architect for this building is unknown.

3. **Owners, Occupants and Uses:** Owners include: Gulf United Nuclear Fuels Corporation, Combustion Engineering Corporation, Asa Brown Boveri, and Westinghouse Electric, LLC. Building 256-1 was built for use as a warehouse.

4. **Builder-Contractor:** The contractor is unknown.

5. **Original Plans and Construction:** The location of the original plans is unknown.

6. **Alterations and Additions:** There have been no alterations or additions made to Building 256-1.

### B. Historical Context

Building 256-1 was originally used as a warehouse and later the space was converted into the pellet drying area. Pellet trays were set into pans, dried in an electric oven using disassociated ammonia as a cover gas. When the drying process was completed the pellets were stored in a semiautomatic vertical storage device called a Kardex, then transferred to Building 230, Rod Loading.

## PART II. ARCHITECTURAL INFORMATION

### A. General Statement

1. **Architectural Character:** Modern industrial

2. **Condition of Fabric:** Good condition

**B. Description of Exterior**

1. **Overall dimensions:** This building measures 79'1" x 47'10." Building 256-1 measures 3,840 total square feet.

2. **Foundation:** Concrete

3. **Walls:** Painted concrete block

4. **Structural system, framing:** Steel

5. **Porches:** There are no porches.

6. **Chimneys:** There are no chimneys.

7. **Openings:**

   a. **Doorways and Doors:** There are two doors used for ingress and egress.

   b. **Windows:** There are no windows.

8. **Roof:**

   a. **Shape, covering:** Flat, metal sheathing over cement

   b. **Cornice, eaves:** There are no cornices or eaves.

   c. **Dormers, cupolas, towers:** There are no dormers, cupolas, or towers.

**C. Description of Interior**

1. **Floor plans:** There are two rooms floor with a small entry area on the north

2. **Stairways:** There are no stairways.

3. **Flooring:** Reinforced concrete slab

4. **Wall and ceiling finish:** Painted concrete block walls and exposed steel beams

5. **Openings:** There is one door leading to Building 254.

6. **Decorative features:** There are no decorative features.

7. **Hardware:** Modern industrial hardware

8. **Mechanical equipment:**

   a. **Heating, air conditioning, ventilation:** Modern heating and cooling system

   b. **Lighting:** Fluorescent

   c. **Plumbing:** There is no plumbing.

**D. Site**

1. **General setting and orientation:** Building 256-1 is located at the back of the facility (south). It is connected to building 254 on the north, Building 253 on the west, and Building 256-2 on the east.

2. **Historic landscape design:** Vernacular landscape design.

## PART III. SOURCES OF INFORMATION

**A. Architectural drawings:** Location of drawings for this building are unknown.

**B. Bibliography:**

Malich, Phillip J. *034-JE-02 Proposed Hematite Former Fuel Processing Facility*. Missouri Department of Natural Resources, State Historic Preservation Office, Jefferson City, Missouri, 2002.

## PART IV. PROJECT INFORMATION

This Historic American Engineering Record (HAER) documentation project was undertaken due to the owner's desire to decommission the Facility. The Facility will be disassembled (this is being done for safety purposes and the work is being done in accordance with federal law and regulations regarding hazardous waste clean-up and disposal). In 2003, Westinghouse Electric Company, LLC, hired SCI Engineering, Inc., of St. Charles, Missouri, to complete the HAER documentation of the Hematite Fuel Fabrication Facility. Dr. Steve Dasovich supervised the project and Historian Colleen Small-Vollman authored the HAER documentation report. The report was compiled by Susan Sheppard. Bruce Meyer and Todd Kapler completed the photographic documentation of the Facility, and Asa Westphal completed the floor plan drawings.